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FARM BUSINESS ANALYSIS REPORT
FOR 1970 AND 1971

F. KEHOE

(ECONOMIST)

FARM MANAGEMENT BRANCH

ALBERTA DEPARTMENT OF AGRICULTURE

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MINISTER

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PREFACE

One of the key tasks of a commercial farmer is to build and maintain a viable economic unit and to make management decisions with respect to that unit which will allow him to achieve his farm goals. These decisions should be based on the facts with respect to the farm situation as well as the resources and alternatives that are available to the individual operator.

Facts about the performance of the farm business must be obtained from observation or recorded activity with respect to the individual farm. On the basis of these facts, decisions will be made with respect to the strength of the business and priorities regarding investment, production, marketing and other farming activities. A Farm Business Analysis can be effective in determining the performance levels of the whole farm business and its parts. The information from farm records indicate progress of the business over a period of time and provide production and financial coefficients for business planning purposes. Good records provide the information required for profit and loss statements, net worth statements, budgets and cash flow statements required by the modern farmer in his transactions with credit agencies and other agri-business firms.

Caution should be exercised in the use of the averages in this report as they are based on farms which have voluntary participated in the Alberta Farm Business Analysis program. Therefore, they do not necessarily represent the average levels of performance for Alberta farms. Comparisons, however, can be useful as benchmarks and guidelines.

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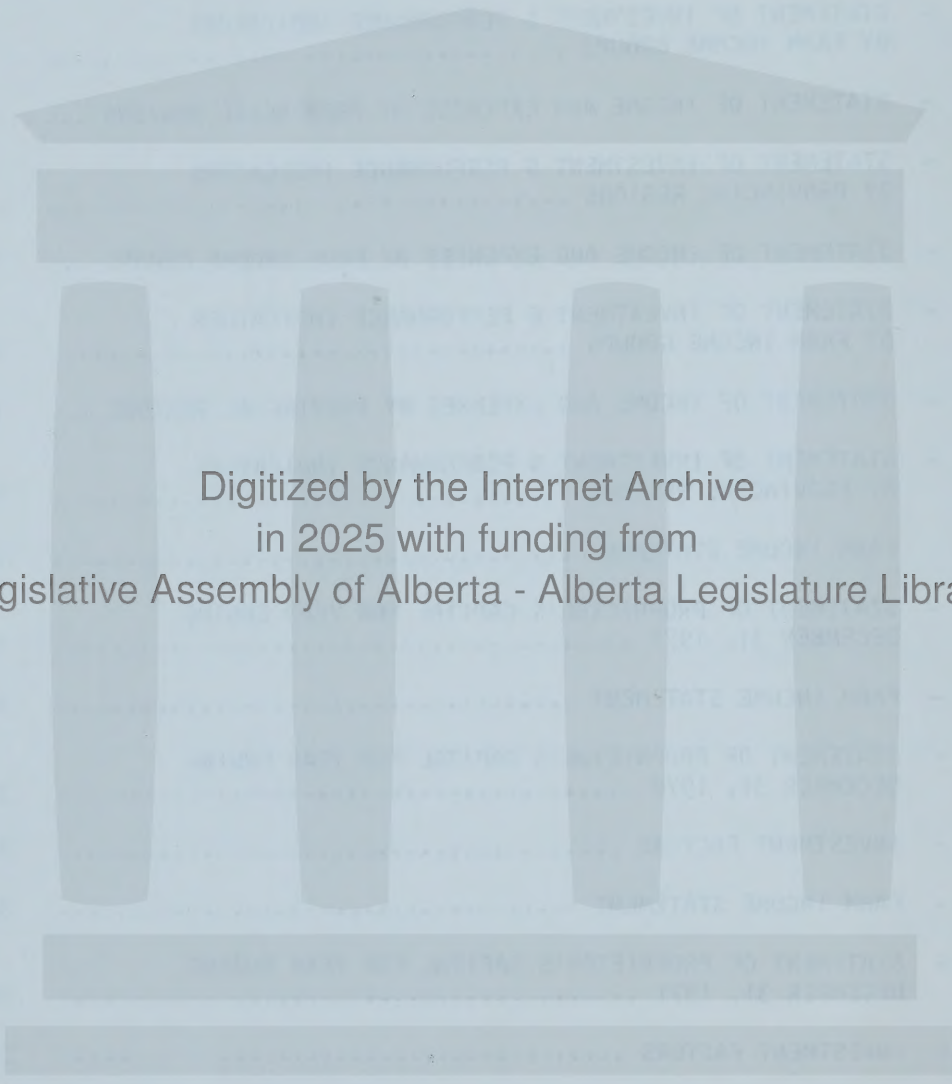

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REPORT ON THE 1970 FARM BUSINESS ANALYSIS

Evaluation of Farm Income Groups

All farms on the Farm Business Analysis in 1970 were divided into three groups: high income farms, intermediate income farms, and low income farms (see Table 1). The farms were grouped on the basis of net income. The groups set up were:

1) the intermediate group which includes all farms whose net incomes were within 1/2 standard deviation above or below the mean,
2) the low group which includes those farms whose income was lower than 1/2 of a standard deviation below the mean,
3) the high group includes those farms whose income was greater than 1/2 of a standard deviation above the mean.

This procedure was used in order to eliminate bias in dividing the sample, as the sample may not represent the entire population of farms in Alberta. The groups determined were:

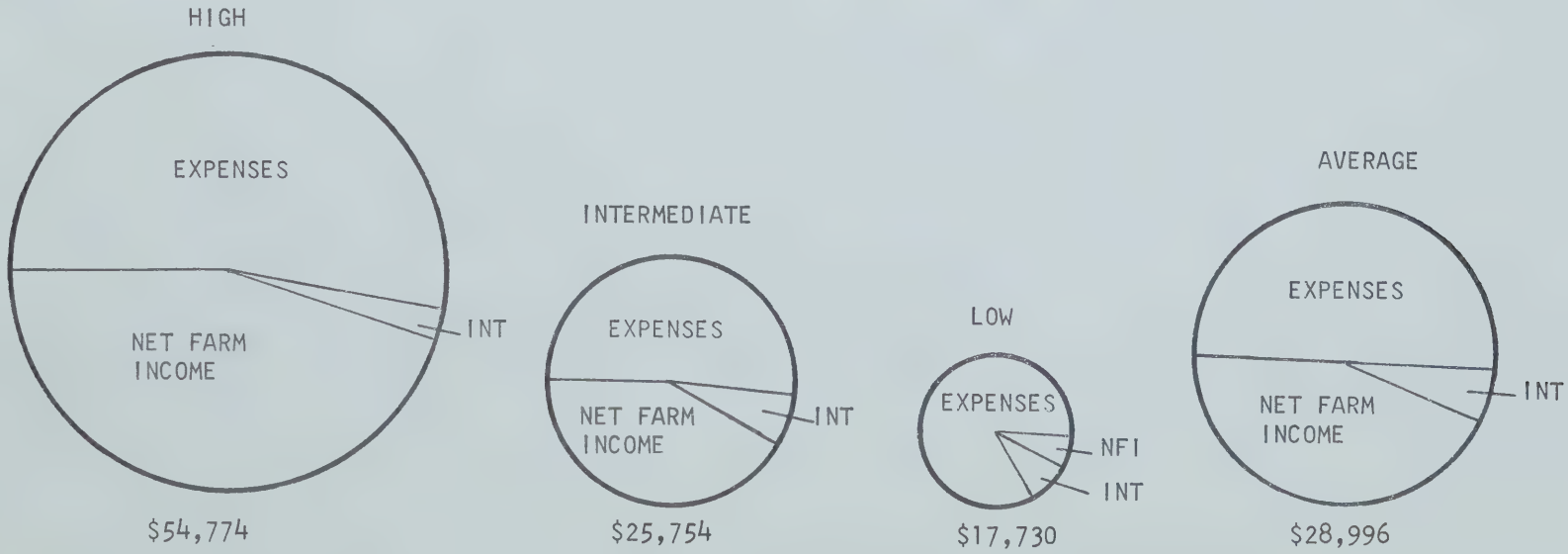
1) low income - 80 farms with a net farm income of less than $5,087,
2) intermediate income - 131 farms with a net farm income between $5,087 and $16,833,
3) high income - 52 farms with a net farm income of greater than $16,833.

On comparing these groups, farms in the low and intermediate groups were found to have similar levels of gross receipts --- $27,046 for the low income farms and $27,853 with the intermediate group. Farms in the high income group averaged $66,941 of gross receipts.

TABLE 1

STATEMENT OF INCOME AND EXPENSES
BY FARM INCOME GROUPS

Group	No. of Farms	Crop & Wheat Board Receipts	Livestock Receipts	Live-stock Product Receipts	Other Receipts	Total Receipts	Adjust-ments	Value of Prod'n In 1970	Expenses	Farm Earnings	Inter-est Paid	NET FARM INCOME
High	52	9463	36108	20342	1028	66941	-12167	54774	26472	28302	2514	25788
Inter-mediate	131	4855	11922	10384	692	27853	- 2099	25754	13947	11807	1399	10408
Low	80	7338	16170	2690	848	27046	- 9316	17730	14735	2995	1678	1317
Average	1	6507	17934	10001	804	35246	- 6250	28896	16632	12364	1700	10664



In order to determine the value of production for each farm, it is necessary to adjust the total receipts for any increase or decrease in inventory during the year and subtract from the receipts any purchases of grain and livestock which have occurred.

The low income group displayed a small decrease in their inventory and large purchases of grain and livestock. These factors had the effect of reducing the total receipts to a value of production of $17,730. The intermediate group showed an increase in their inventories over the year, relatively smaller purchases of grain and livestock and a net value of production of $25,754. It is interesting to note that although the total receipts and expenses were virtually the same for both the low and intermediate groups, the value of production and net farm income varied by over $8,000 between them.

The high income farm group displayed gross receipts of $66,941, a build-up of inventories $9,282, purchases of grain and livestock amounting to $21,165 and a value of production of $54,774.

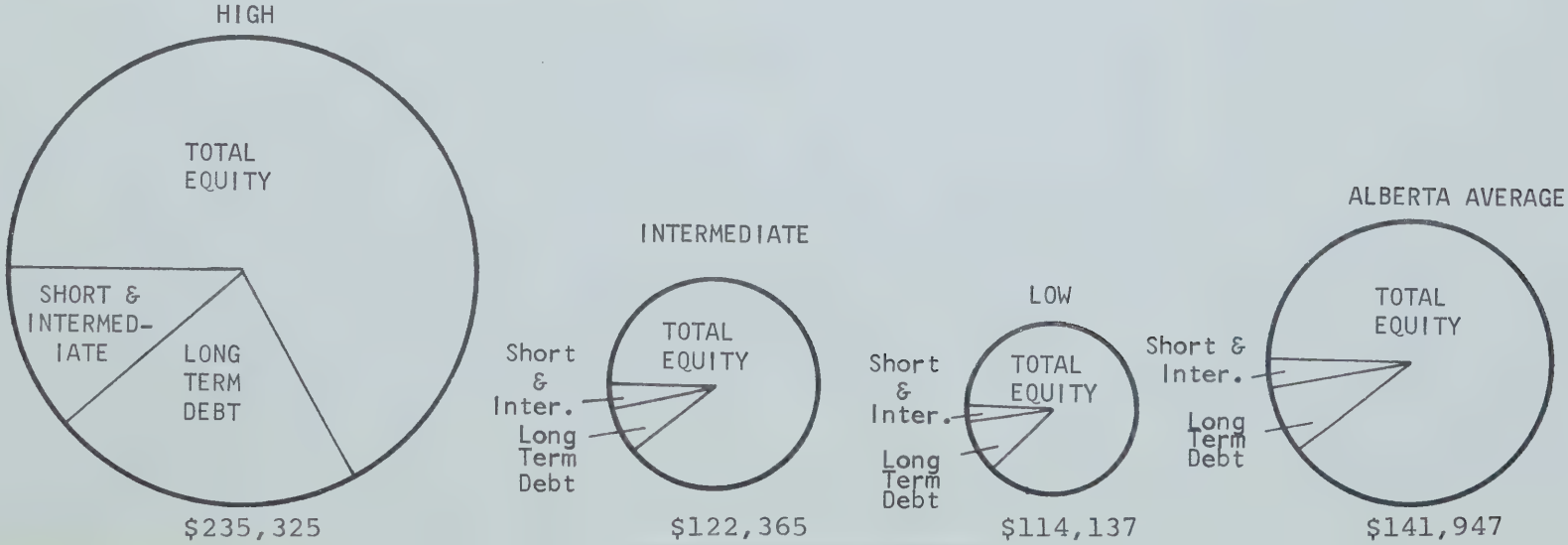
As noted above the expenses incurred by the low and intermediate group were very similar. On the other hand, the high income group had expenses which were almost double those of the low and intermediate group. This shows the very important role that operating capital plays in the generation of farm income.

A study of the investment and capital positions of the groups (see Table 2) showed that the low and intermediate group had similar investments in land, buildings and improvements; $63,550 versus $62,813 but a notable variation in the current assets; $58,816 in the intermediate group compared with $51,324 in the low income group. The high income group had notably

TABLE 2 STATEMENT OF INVESTMENT BY FARM INCOME GROUPS

PERFORMANCE INDICATORS BY FARM INCOME GROUPS

Group	Current Assets	Buildings and Improvements	Land	Total Assets	Short & Intermediate Term Debt	Long Term Debt	Total Equity	Capital Ratio	Working Ratio	Capital Turnover (years)	% Return on Investment
High Income	119684	23329	92312	235325	14140	30487	190698	5.1	8.1	4.9	9.6
Inter Income	58816	11992	51558	122365	6062	12955	103348	6.3	9.2	5.2	5.5
Low Income	51324	11956	50857	114137	8652	18656	86829	4.2	6.0	7.5	-1.0
Alberta Average	68443	14195	59309	141947	8424	18107	115416	5.2	7.8	5.5	5.2



higher investments in both categories -- current assets amounted to $119,684 and building, improvements and land investments amounted to $115,641.

The total asset picture of the three groups then were $83,717 for the low income group, $122,366 for the intermediate group and $235,325 for the high income group.

The liabilities associated with the farms in the three groups left farm equities of $86,829, $103,348 and $190,698 in the low, intermediate and high income groups respectively. It is noteworthy that the low income group along with having the lowest investment of any group, displayed an accompanying liability greater than the intermediate but lower than the high income group. For a more detailed income statement and balance sheet see Appendix Table A1.

The asset-liability capital ratio of the groups were 4.2, 6.3 and 5.1 and the working ratio 6.0, 9.2 and 8.1 for the low, intermediate, and high income groups respectively. The capital ratio is equal to total assets divided by total liabilities and the working ratio is current and working assets over short and intermediate term liabilities. The percent return on the investment varied from a high 9.6% of the high income farms to 5.5% and -1.0% with the intermediate and low income farms.

The relationship between the value of production and the total farm assets is measured by the capital turnover. The low income group had a capital turnover rate of 7.5 years, that is, the value of production from the farm will equal the total assets in 7.5 years. The intermediate and high income groups had capital turnover ratios of 5.2 and 4.9 years respectively.

Farms Grouped by Regions

To study the variation in income levels and farm business investment structure, the farms were grouped according to the region of the province in which they were located (see Figure 1). The study of income and expenses (see Table 3) shows considerable variation in source of receipts for the different regions. This can be explained by the types of farms as shown below:

Region 1 consisted of mainly crop and beef farms

Region 2 included numerous dairy farms

Region 3 no dairy farms but numerous crop and livestock operations

Region 4 a combination of dairy and livestock farms

Region 5 feedlots and hog operations made up the bulk of the farms in this group

Region 6 numerous dairy farms were present in this group

Region 7 this group was mainly mixed livestock - crop farms.

The farms with the lowest investment and receipts were farms in the Peace River Region #7. These farms had total assets of $97,664 and a value of production of $17,248. The largest farms studies were from region #3; these farms had investments amounting to $179,769 and production in 1970 valued at $43,357. The percentage that net farm incomes were of the value of production varied from 34% in region #1 and #2 to 42% in region #3, i.e., of the total value of 1970 production the farms in region #1 and #2 retained 34% and farms in region #3 retained 42% as operator income.

Table 4 shows the investment associated with farms in the seven regions. The total investment varied from $179,769 in region #3 to $97,664 in region #7. The equity in the farm is determined by deducting the indebtedness from

FIGURE 1

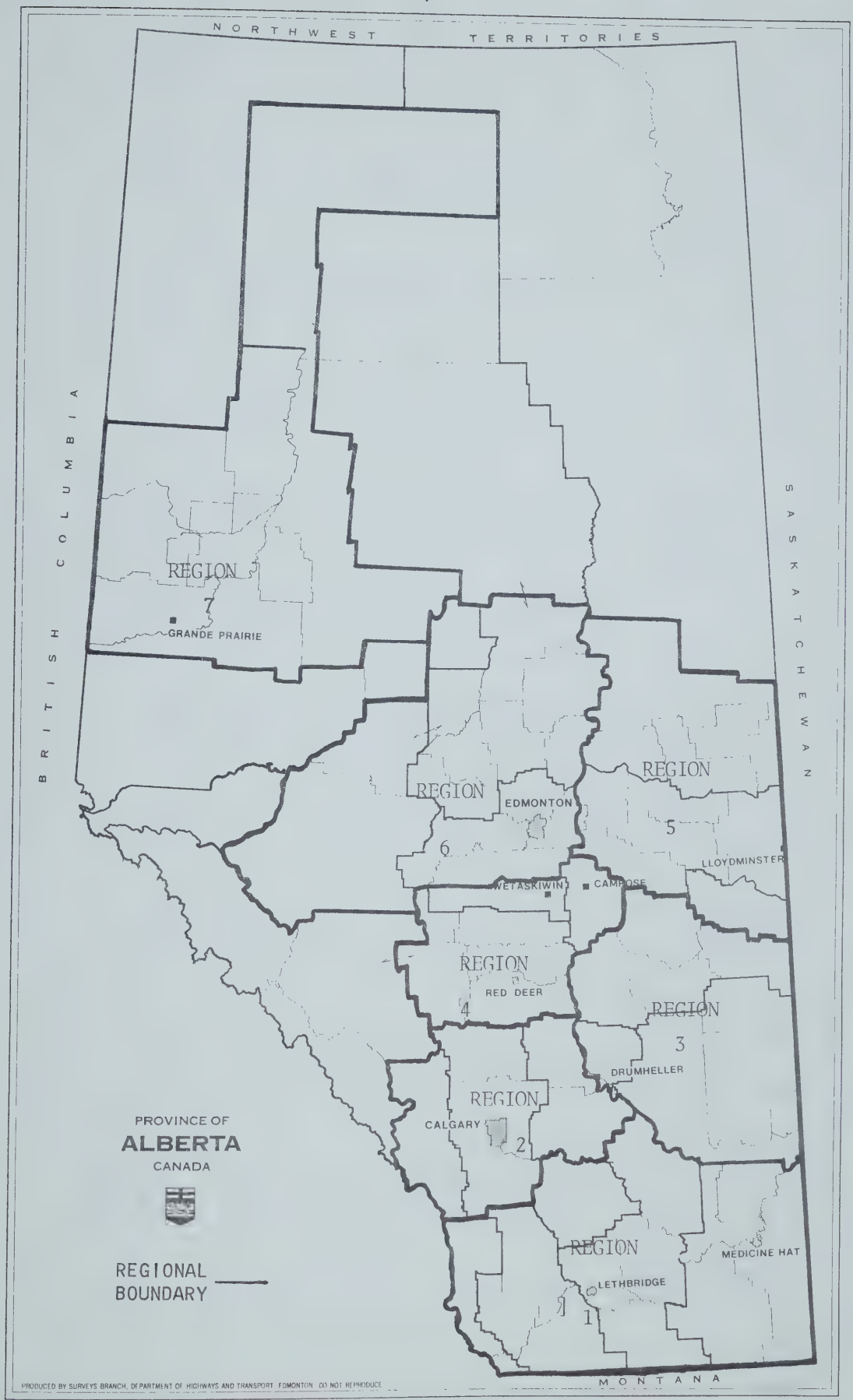

NORTHWEST TERRITORIES
BRITISH COLUMBIA
SASKATCHEWAN
MONTANA
REGION 7
GRANDE PRAIRIE
REGION 6
EDMONTON
REGION 5
LLOYDMINSTER
WETASKIWIN
CAMPOSE
REGION 4
RED DEER
REGION 3
DRUMHELLER
REGION 2
CALGARY
REGION 1
LETHBRIDGE
MEDICINE HAT
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TABLE 3

STATEMENT OF INCOME AND EXPENSES
BY PROVINCIAL REGIONS

Region	Crop & Wheat Board Receipts	Livestock Receipts	Live-stock Product Receipts	Other Receipts	Total Receipts	Purch. & Inven. Adjust-ments	Value of Prod'n in 1970	Expenses	Farm Earnings	Interest Paid	NET FARM INCOME
1	10697	25390	5250	1516	42853	-10267	32586	19484	13102	1773	11329
2	8974	18376	17431	945	45725	- 8661	37064	22189	14876	2264	12612
3	9939	43328	-	1461	54728	-11371	43357	22236	21121	2708	18413
4	2296	28004	15471	765	46510	-14442	32068	18372	13696	1826	11870
5	11182	25004	296	702	37195	-10047	27137	14457	12680	2593	10087
6	1540	8432	21290	491	31754	- 2204	29550	16287	13263	1156	12107
7	5369	8818	465	829	15481	+ 1767	17248	9167	8080	1297	6783

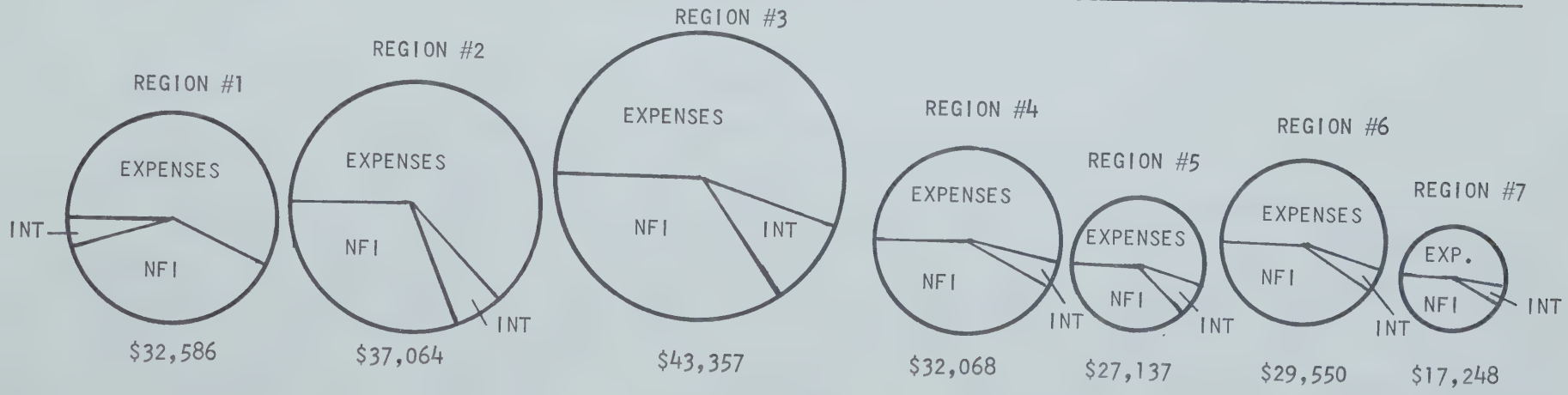
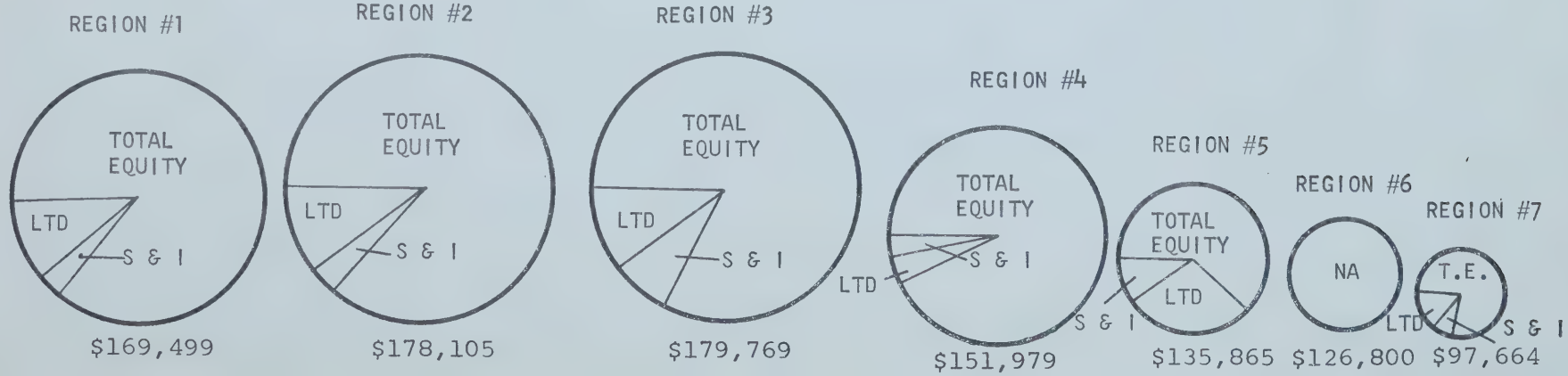


TABLE 4 STATEMENT OF INVESTMENT BY PROVINCIAL REGIONS

PERFORMANCE INDICATORS BY PROVINCIAL REGIONS

Region	Current Assets	Buildings and Improvements	Land	Total Assets	Short & Intermediate Term Debt	Long Term Debt	Total Equity	Capital Ratio	Working Ratio	Capital Turnover (years)	% Return on Investment
1	80306	15032	74161	169499	9036	27410	132153	4.4	7.8	5.8	4.9
2	76177	17921	84006	178105	8140	23998	146967	5.7	9.2	5.9	4.9
3	108006	15305	56399	179769	18328	37034	124405	3.1	5.6	4.6	11.8
4	71962	18747	61271	151979	6638	8616	136725	9.7	10.6	5.0	5.9
5	68911	8978	57976	135865	10796	35204	89865	2.9	6.0	5.6	6.2
6	64958	17366	44476	126800	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	47907	7376	42381	97664	9770	17977	69918	3.4	4.8	5.8	3.6



the farm investment. The amount of outstanding debt was available for all regions except region #6. Taking the indebtedness into consideration farm equities of $132,153, $146,976, $124,405, $136,725, $89,865 and $69,918 were determined for regions #1, #2, #3, #4, #5, and #7 respectively.

A review of the various performance indicators show region #5 having the lowest capital ration, 2.9 and region #4 the highest, 9.7. Considering the working ratios, region #4 is again the highest with 10.6 and region #7 the lowest with a ratio of 4.8. This would suggest that farms studies in region #4 were in a secure financial position whereas those in region #3, #5 and #6 are in relatively less secure position. The percent return on investments were 4.9 for regions #1 and #2, 11.8 for region #3, 5.9 for region #4 and 6.2 and 3.6 for regions #5 and #7.

REPORT OF 1971 FARM BUSINESS ANALYSIS

Evaluation of Farm Income Groups

The 1971 Farm Business Analysis farms were divided into groups: high, intermediate and low income farms, the grouping being on the same basis as that used with the 1970 data, see page 1. The income groupings were as follows:

1) Low net farm income - less than $6,458.

2) Intermediate net farm income - between $6,458 and $19,056.

3) High net farm income - greater than $19,056.

The number of farms in these groups were: 37, 75 and 22 for the low, intermediate and high groups respectively.

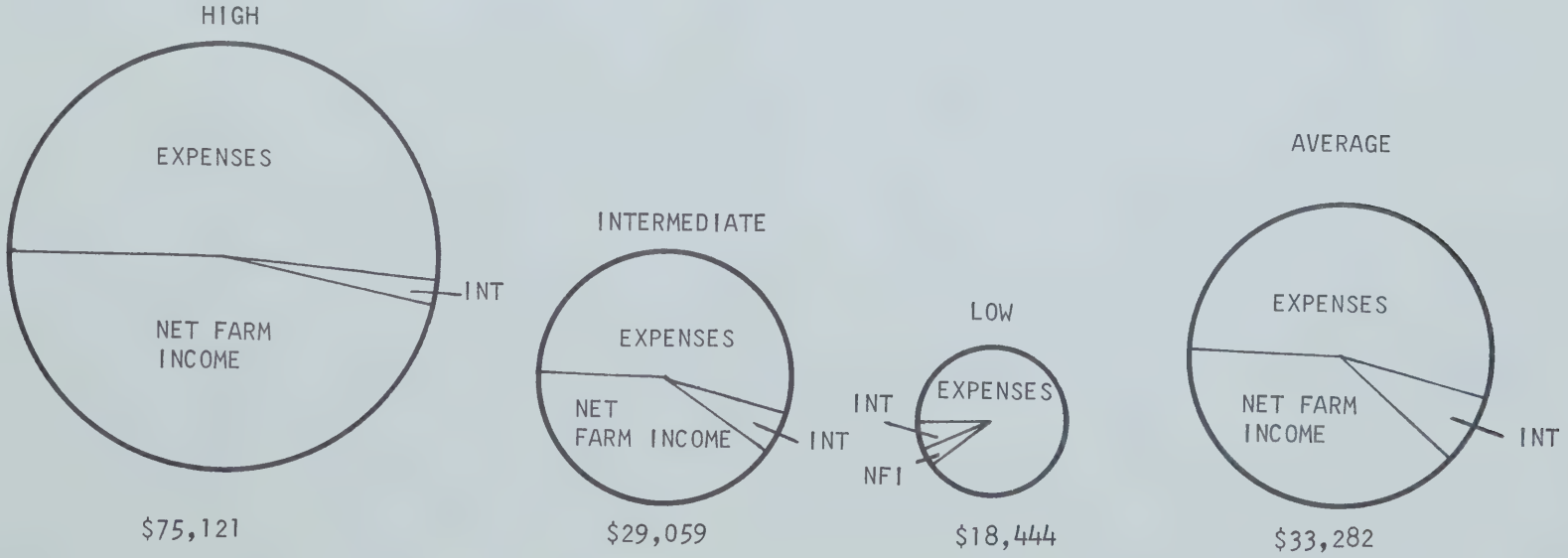
The gross receipts of the three groups showed a wide variation ---- $100,194 for the high income farms, $29,911 for the intermediate group and $21,016 in the low income group. The value of production realized by the three groups also varied widely, the high, intermediate and low income groups having values of production of $75,121, $29,050 and $18,444 respectively, Table 5.

The change in inventory throughout 1971 was apparently the result of livestock purchases. The low income farms purchased $2,360 worth of livestock realizing a net increase of $1,209 in their livestock and displayed a net livestock inventory increase of $2,690, while the farms of the high income group purchased livestock amounting to $40,337 and had an inventory increase in livestock of $21,184.

TABLE 5

STATEMENT OF INCOME AND EXPENSES
BY FARM INCOME GROUPS

Group	No. of Farms	Crop & Wheat Board Receipts	Livestock Receipts	Live-stock Product Receipts	Other Receipts	Total Receipts	Adjust-ments	Value of Prod'n in 1971	Expenses	Farm Earnings	Inter-est Paid	NET FARM INCOME
High	22	5731	64172	28367	1924	100194	-25074	75121	36283	38838	4110	34728
Inter-mediate	75	5230	8382	15265	1035	29911	- 852	29059	16376	12683	1175	11508
Low	37	6065	9515	4604	878	21016	- 2617	18444	13707	4737	1306	3431
Average	1	5495	17767	14176	1139	38576	- 5294	33282	18645	14637	1665	12972



The grain inventories changed very little with only the low income group showing a decrease.

Little difference was noted in the total operating expenses of the low and intermediate net income groups, $13,707 and $16,376 respectively. The high income group on the other hand incurred operating expenses of $36,283. The production generating capacity of the operating capital is apparent when one considers the operating expenses incurred to generate $100 worth of production.

The total operating expenses per one hundred dollars of production were $48.29, $56.35 and $74.31 for the high, intermediate and low income farms respectively. The high income group then had the greatest value of production for each dollar spent on the farm.

The current and working assets of the three groups were: $166,368, $65,598 and $51,086 for the high, intermediate and low farms respectively, Table 6. These assets were in comparison to total intermediate and short term debts of $31,840, $5,310, and $7,796. Working ratios [1/] of 5.2, 12.7 and 6.5 were then realized by these three net farm income groups.

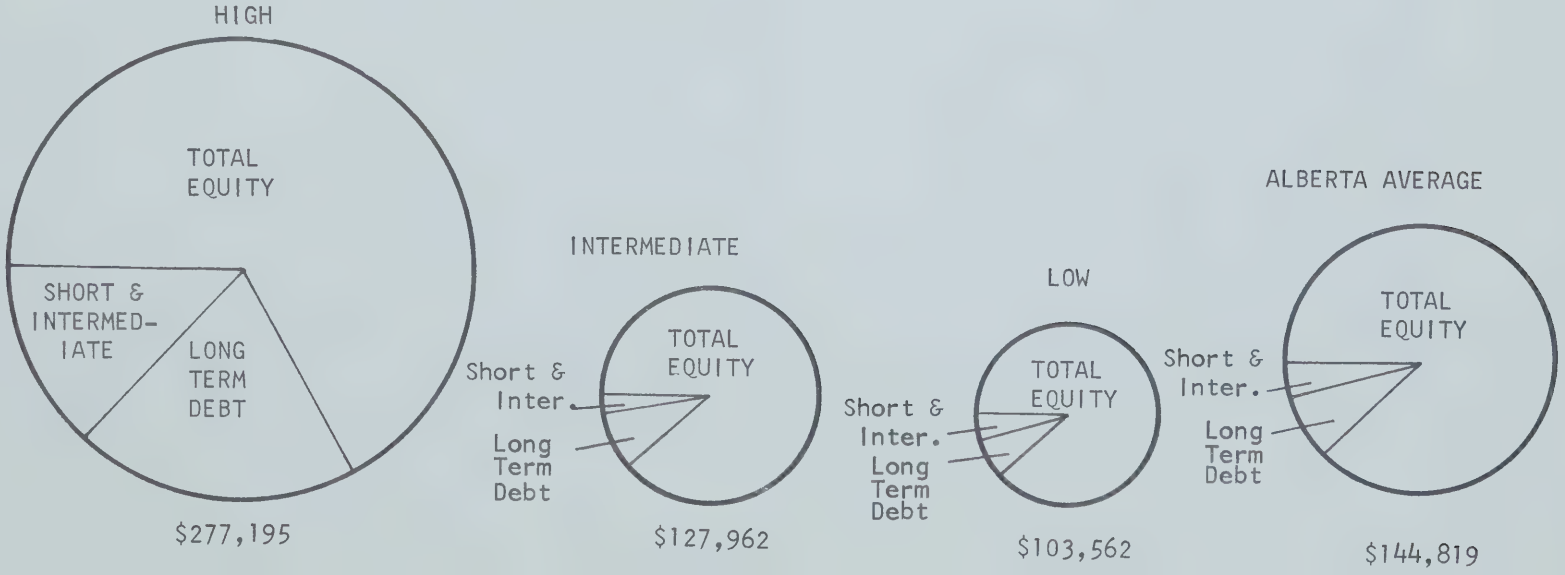
The fixed assets of the farm groups were $110,827, $127,962 and $52,440, realizing net capital ratios, total assets divided by total liabilities, of 3.6, 5.7 and 4.2 for the high, intermediate and low income farms respectively.

[1/] Working ratio = (Current + Working assets) ÷ (Short + Intermediate term debt).

TABLE 6 STATEMENT OF INVESTMENT BY FARM INCOME GROUPS

PERFORMANCE INDICATORS BY FARM INCOME GROUPS

Group	Current Assets	Buildings and Improvements	Land	Total Assets	Short & Intermediate Term Debt	Long Term Debt	Total Equity	Capital Ratio	Working Ratio	Capital Turnover (years)	% Return on Investment
High Income	166368	26479	84348	277195	31840	43047	202308	3.6	5.2	4.1	12.4
Inter Income	65598	16470	45894	127962	5310	16546	106106	5.7	12.7	5.1	5.8
Low Income	51086	11234	41206	103526	7796	16411	79319	4.2	6.5	6.3	.4
Alberta Average	77511	16389	50919	144819	10042	20519	114258	4.7	7.8	4.9	6.5



These ratios show that the intermediate group of farms is in the most secure financial position of the three groups, possibly to the degree of not using its equity position to the greatest economic advantage. The percent return to total investment varied from 12.4% on the high income farms to 5.8% and -0.4% on the intermediate and low income farms respectively.

The measure of the income generating function of the capital invested in the farm is the capital turnover rate. The high income farms had a capital turnover rate of 4.0 years, i.e. in 4 years the value of production is equal to the total farm assets. The intermediate and low income groups had capital turnover of 5.1 and 6.3 years respectively.

Farms Grouped by Regions

A second evaluation of the data was carried out comparing farms located in the seven Provincial regions; see Table 7.

The types of farms were not the same in all regions as the income statement portrays. Farms in regions 1, 2 and 4 were mainly livestock farms operating dairy, beef cattle and hog enterprises. Farms in region 5 were a combination of crop and livestock farms while beef and hog operations were the main source of income for the farms of regions 3, 6 and 7.

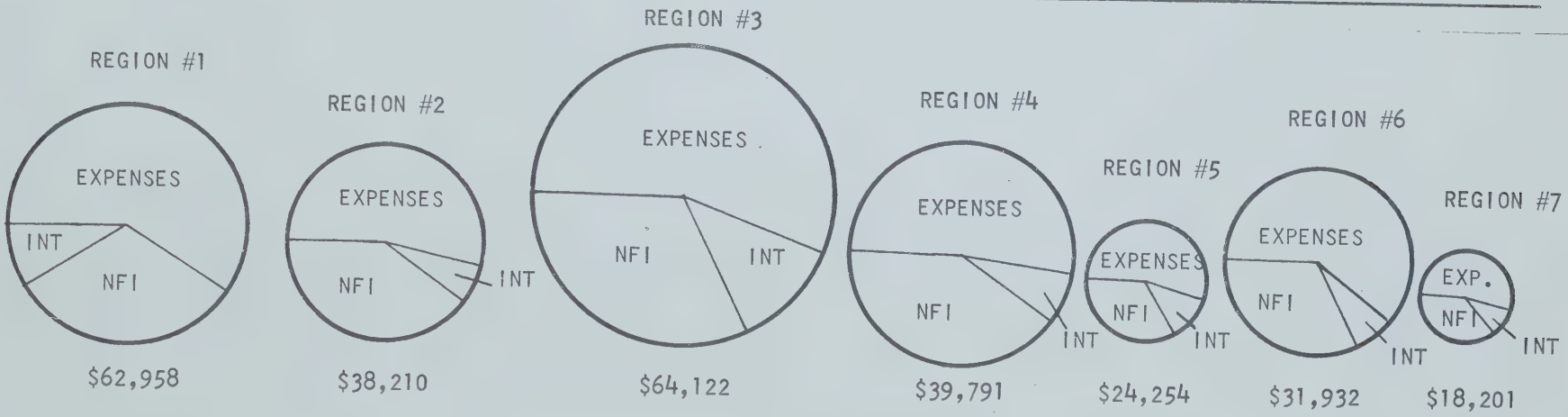
The value of production varied widely between the various regions. Regions 1 and 3 had the highest value of production, $62,958 and $64,122; regions 2, 4 and 6 had $38,210, $39,791 and $31,932 worth of production and regions 5 and 7 had the lowest value of production, $24,254 and $18,201 respectively. The investment per $100 worth of production varied from $37.80 in region 2 to $53.40 in region 7. Regions 1, 3, 4, 5 and 6 had investments of $43.80, $38.80, $43.30, $40.40 and $42.20 respectively for each $100 of production generated.

1971

TABLE 7

STATEMENT OF INCOME AND EXPENSES
BY PROVINCIAL REGIONS

Region	Crop & Wheat Board Receipts	Livestock Receipts	Live-stock Product Receipts	Other Receipts	Total Receipts	Purch. & Inven. Adjust-ments	Value of Prod'n in 1971	Expenses	Farm Earnings	Interest Paid	NET FARM INCOME
1	6772	52835	25424	1835	86866	-23908	62958	36753	26205	3398	22807
2	3333	18271	22467	1007	45078	- 6868	38210	21374	16836	1130	15706
3	14425	68099	-	4933	87457	-23335	64122	33104	31018	4035	26983
4	2409	18604	30410	834	52257	-12466	39791	24335	15456	2758	12698
5	14899	6932	444	1968	24243	+ 11	24254	14034	10220	1786	8434
6	1473	4924	25174	391	31962	- 30	31932	17908	14024	1031	12993
7	6539	10048	105	812	17504	+ 697	18201	9684	8517	1128	7389



The relationship between investment and gross return is reflected in the capital turnover ratio. This is a ratio showing the years required for the value of sales to equal the investment. The capital turnover ratios of regions 1, 3, 4, 5 and 7 [1/] were: 4.7, 4.3, 4.9, 5.2, and 5.5.

Another measure of the income producing capacity of the investment is the percent return to equity and borrowed capital. The highest percent return was realized in region 3, 11.6%; regions 5, 2 and 1 had returns of 8.0%, 7.6% and 7.0% and regions 6, 4 and 7 had returns of 6.2%, 5.8% and 3.7% respectively. As most investments today will yield between 5 and 7%, one might say that farms in all regions except 7, realized a comparable or better return on their capital than they could by investing their money outside the farming operations.

The capital and working ratios reported from the study are a measure of the relative secureness of the farm operation, capital ratio measuring the overall farm risk position and the working ratio measuring the short term position. A low capital or working ratio means the amount of indebtedness in the farm is close to the amount of assets owned by the farm operator. A ratio of 1:1 would mean equal amounts of debt and equity. In most businesses a ratio of 2:1 or higher is considered secure, although this might not be true in farming. The capital ratios of the 7 regions were: 4.3, 2.8, 4.2, 2.6 and 4.3 for the 7 consecutive regions, regions 2 and 6 excluded.

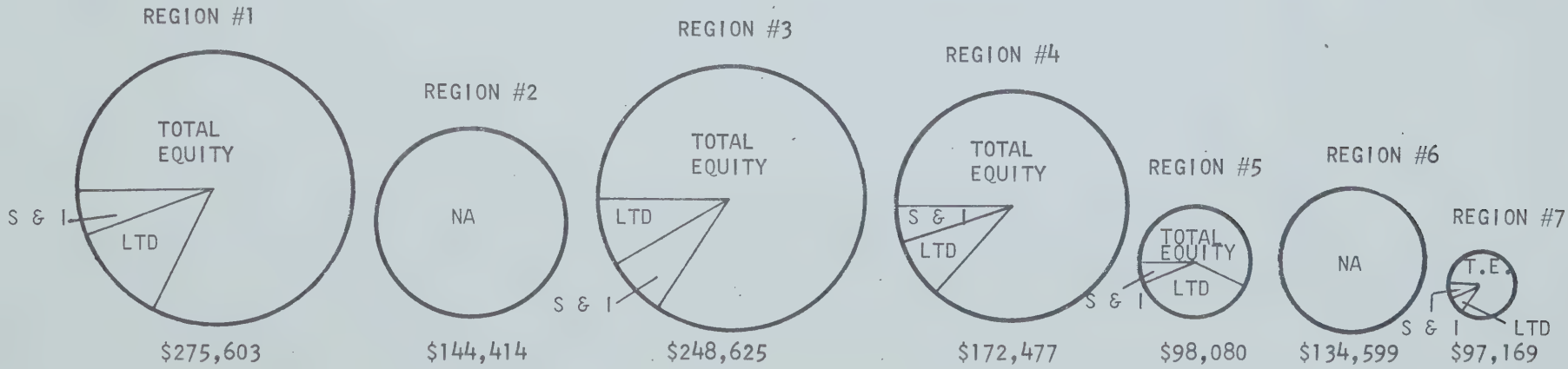
The working ratios displaying the short term indebtedness varied from 3.1 in region 3 to 9.0 in region 4. Ratios are not presented for regions 2 and 6 in that farms in these regions did not record all their debts on the input forms.

1/ Balance sheets of some farms in regions 2 and 6 were not complete and for this reason were not included.

TABLE 8 STATEMENT OF INVESTMENT BY PROVINCIAL REGIONS

PERFORMANCE INDICATORS BY PROVINCIAL REGIONS

Region	Current Assets	Buildings and Improvements	Land	Total Assets	Short & Intermediate Term Debt	Long Term Debt	Total Equity	Capital Ratio	Working Ratio	Capital Turnover (years)	% Return on Investment
1	143047	30757	101799	275603	19546	43759	212298	4.3	7.3	4.7	7.0
2	76764	17828	49822	144414	-	-	-	-	-	5.0	7.7
3	175896	13251	59478	248625	56433	31044	161148	2.8	3.1	4.3	11.6
4	92115	27782	52580	172477	12407	28934	131136	4.2	9.1	5.0	5.8
5	45187	9227	43666	98080	7790	29508	60782	2.6	5.7	5.2	8.0
6	69136	19328	46135	134599	-	-	-	-	-	4.9	6.2
7	49422	8308	39439	97169	7114	15095	74960	4.3	6.7	5.5	3.7

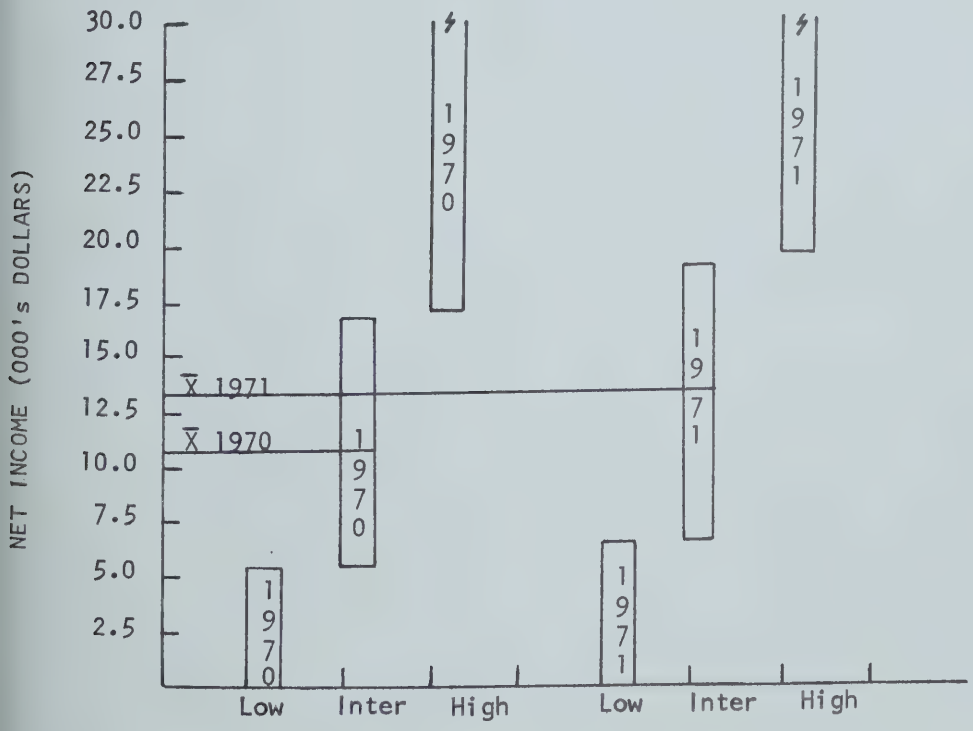


COMPARISON OF 1970 AND 1971 DATA

Most farms which were included in the 1971 Farm Business Analysis were also enrolled in the 1970 study.

The same grouping procedure was used in the analysis of both years. Some change was noted in the income levels of the three groups. In 1970 the low group, those farms whose net income was less than 1/2 of a standard deviation below the mean, were farms whose incomes were less than $5,087 where as in 1971 this income level rose to $6,458. The intermediate group in 1970 were farms whose incomes were between $5,087 and $16,833 in 1971 the income range of this group varied from $6,458 to $19,056 and the 1970 high income group, those farms whose net income was above $16,833 compared with $19,056 in 1971.

FIGURE 2 COMPARISON OF INCOME DISTRIBUTION



The major reason for the increase in net farm income in 1971 compared with 1970 was an overall increase in livestock product sales in the intermediate and low income groups and a large increase in livestock sales in the high income group. When all farms were combined, the comparative 1970 and 1971 value of production and expenses were $28,896 and $16,632 respectively in 1970 and $33,282 and $18,645 respectively in 1971. The net result of this situation was an increase in net farm income of $2,308 in 1971 compared with 1970.

The investment situation 1970 vs 1971 was also evaluated. Current assets and buildings and improvements increased by $9,068 and $2,194 in 1971, but a decrease of $8,390 occurred in the value of land. The net result of this was an overall increase in total assets of $2,873 in 1971.

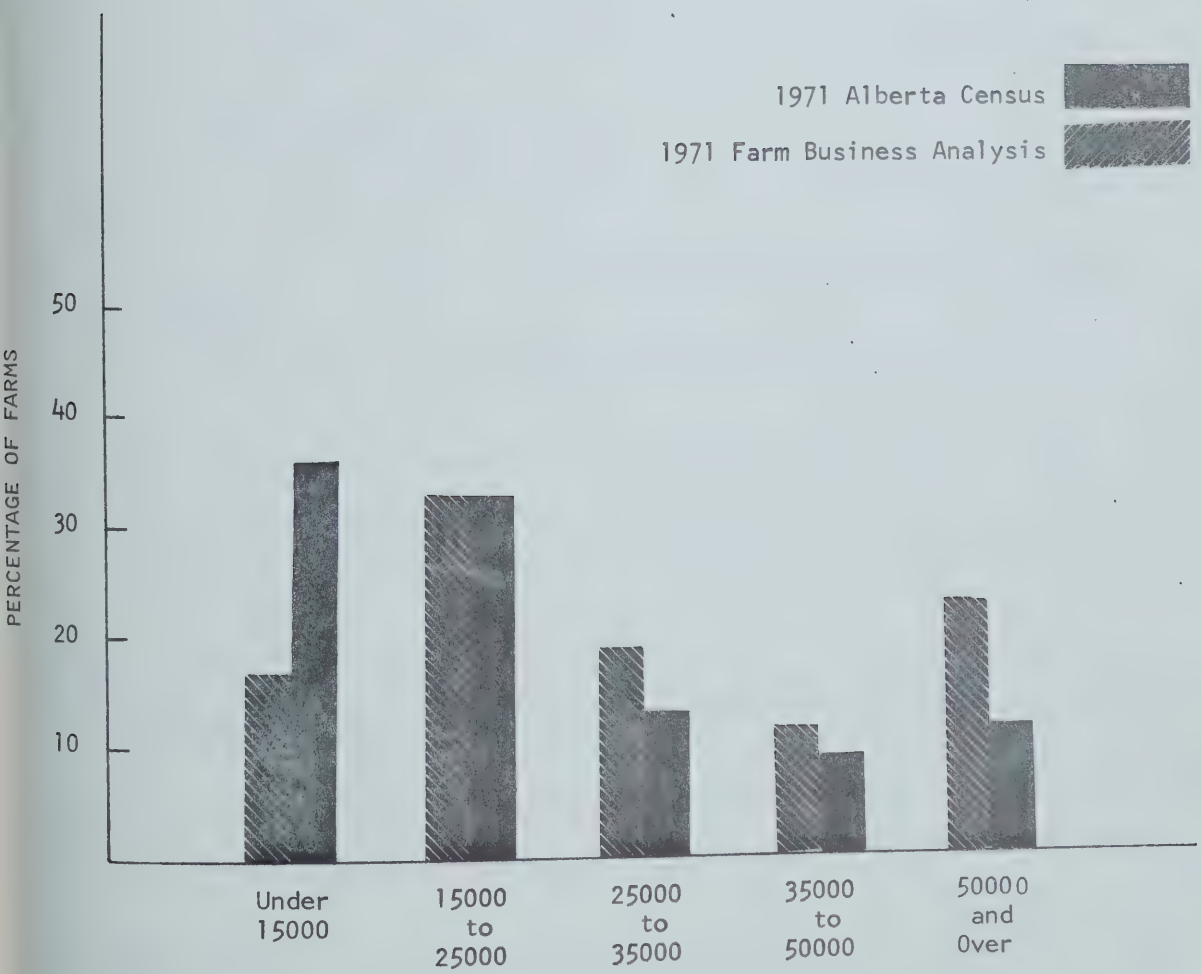
In conjunction with this increase in assets the short and intermediate term debt increased from $8,424 in 1970 to $10,042 and the long term indebtedness increased from $18,107 to $20,519.

These changes in the investment structure resulted in a slight decrease in equity over the 2 years. Much of this change could be directly attributed to the change in the value of land. In 1970 the average farm size was 1,180, of which 655 were cultivated, whereas the 1971 data showed 1,188 acres of which 725 were cultivated. The value of land declined from $50 per acre in 1970 to $43 per acre in 1971.

The asset liability ratios changed little over the 2 years. The capital ratio decreased from 5.2 to 4.6 while the working ration remained unchanged at 7.8. The other two management coefficients, capital turnover and percent return on investment did vary from 1970 to 1971. The capital turnover ratio decreased from 5.5 to 4.9 years and the percent return on investment increased from 5.2% in 1970 to 6.5% in 1971.

In 1971 the Government of Canada carried out a census. Figure 2 shows the comparison of the distribution of Farm Business Analysis farms and the census farms grouped according to the total receipts received in 1971. It is readily apparent that the farms enrolled in the Alberta Farm Business Analysis had income distributions that were notably higher than the provincial distribution pattern.

FIGURE 3 TOTAL FARM RECEIPTS



YOUR FARM

CALCULATING YOUR OWN MANAGEMENT STATUS

This section is included in order to allow each individual farmer an opportunity to evaluate his own business. The procedure for determining the inputs required in these calculations are outlined in Tables 9 and 10. The values required in these calculations are identified by corresponding numbers on the financial statement.

A. RETURN ON EQUITY

This is the measurement most businesses use in establishing profitability.

$\frac{\text{NET FARM INCOME}}{\text{TOTAL EQUITY}}$ = RETURN ON EQUITY (x 100) = % RETURN ON EQUITY

YOUR FIGURES
$\frac{(1)}{(2)}$ = _____ (x 100) = _____

Generally, business considers a return of 9 - 10% to be good performance.

B. RETURN ON EQUITY AND BORROWED CAPITAL

This ratio measures the efficiency of your use of all capital available to the business.

$\frac{\text{NET FARM INCOME}}{\text{TOTAL ASSETS}}$ = RETURN ON EQUITY & BORROWED CAPITAL x 100 = % RETURN

YOUR FIGURES
$\frac{(1)}{(3)}$ x 100 = _____

A return of 7 - 8% is considered to be efficient use of capital.

C. WORKING CAPITAL

This calculation tells one what funds are available to provide for expansion without having to borrow.

CURRENT ASSETS - CURRENT LIABILITIES (Short and Intermediate Term) = WORKING CAPITAL

YOUR FIGURES
(4) (5+6) = _____

. WORKING RATIO

This ratio gives a measurement of the relative debt position in the short run. A ratio greater than 1 means you have sufficient funds to pay up current obligations.

CURRENT ASSETS / SHORT & INTERMEDIATE TERM DEBTS = WORKING RATIO

YOUR FIGURES
(4) / (5+6) = _____

A working ratio of 2 or greater is considered a secure position.

. CAPITAL RATIO

This ratio is a measurement of the overall debt position

TOTAL ASSETS / TOTAL LIABILITIES = CAPITAL RATIO

YOUR FIGURES
(3) / (8) = _____

A farmer starting out in farming will normally have a much lower ratio than an established farmer. A ratio 2 or above suggests security.

. CAPITAL TURNOVER

This is a measure of the production generated by the capital invested in the farm.

TOTAL ASSETS / VALUE OF PRODUCTION = CAPITAL TURNOVER

YOUR FIGURES
(3) / (7) = _____

FARM INCOME STATEMENT

For the Year End

A.	Operator's Crop Receipts.....	
	Wheat Board Payments.....	
	Operator's Livestock Receipts.....	
	Operator's Livestock Product Receipts.....	
	Operator's Other Farm Receipts.....	
	OPERATOR'S RECEIPTS.....	
	Landlord's Receipts.....	
	TOTAL OPERATING RECEIPTS.....	
	Change in Crop Inventory.....	
	Change in Livestock Inventory.....	
	Adjusted Farm Operating Receipts.....	
	Less Grain and Hay Purchased.....	
	Less Livestock Purchased.....	
	Add Perquisites.....	
(7)	VALUE OF FARM PRODUCTION.....	
	Car and Truck Expenses.....	
	Tractor Expenses.....	
	Combine & Swather Expenses.....	
	Other Equipment Expenses.....	
	Building & Improvement Repairs.....	
	Crop Expenses.....	
	Livestock Expenses.....	
	Farm Overhead Expenses.....	
	Hired Labour Expense.....	
	Small Tools & Equipment.....	
	Cash Rent.....	
	Share Rent Earned by Landlord.....	
	Adjust for Supplies Inventory Change.....	
	Depreciation.....	
	TOTAL OPERATING EXPENSES.....	
	NET FARM EARNINGS.....	
	Less Interest Paid.....	
(1)	OPERATOR'S NET FARM INCOME.....	

TABLE 10 STATEMENT OF PROPRIETOR'S CAPITAL Exhibit B

FOR YEAR ENDING DEC. 31, 1971

Investment January 1, 1971.....

Add Net Farm Income - Exhibit A.....

Total.....

Deduct Withdrawals.....

Balance December 31, 1971.....

BALANCE SHEET Exhibit C

DECEMBER 31, 1971

ASSETS

Current Assets

Farm Cash.....
Accounts Receivable.....
Quota.....
Supplies.....
Grain and Feed.....
Livestock.....
Machinery and Equipment.....

(4) Total Current Assets.....

Fixed Assets

Buildings and Improvements.....
Land.....

(2) Total Fixed Assets.....

(3) TOTAL ASSETS.....

LIABILITIES

(5) Short Term.....

(6) Intermediate Term.....

Long Term.....

(8) Total Current and Long Term Liabilities.....

Proprietor's Equity

Capital - Exhibit B.....

TOTAL LIABILITIES.....

CONTEMPLATING A CHANGE IN YOUR FARMING OPERATION

When changing your farming operation you are probably moving towards a higher level of risk. Careful planning and decision making can eliminate some of the unknowns and reduce this risk.

There are some questions which can be answered from your own experience, especially if you are only expanding your present operation, but when entering a new farming enterprise you must rely on others for information.

What sources of information are available:

1) Market Information: The Alberta Department of Agriculture releases statistics on various grain and livestock markets weekly. These releases also include forecasts and projections on future markets. Historical data is also available if one wishes to do their own analysis and make their own projections on future markets.

2) Production Information: The Department of Agriculture in Alberta has available numerous cost studies on topics from livestock operations, to grain and oilseed production, to the cost of sugar beets, corn and pear production.

The University of Alberta annually releases the Feeder's Day Report which contains both production costs and physical production data such as feed conversion, ration formulation, etc.

3) Physical Production Data: This data is attained through the University, the experimental farms and the provincial enterprise analysis program.

4) Farm Business Organizations: Materials are available through the Department, covering such topics as Estate Planning, Farm Operating Arrangements, leases, incorporations, partnerships, etc.

5) Funding: Information on loans is available from any of the Private Lending Agencies, the Farm Credit Corporation and the Alberta Farm Purchase Board.

Your local District Agriculturist is the man to see if you need any of the above sources of information.

Another source of valuable information is your own records. These records, if complete, will tell you your costs of production in the past and the physical data associated with these costs. Having gathered the necessary information one is now in a position to make an estimate on the change in income that is likely to result if he takes a particular action. This forward planning tool is a Partial Budget (see pages 29 & 30). This budget is "partial" in that it only considers the portion of your entire farm that you are going to change.

In using the partial budget one estimates the added costs and returns, and the accompanying reduction in costs and returns (if some other operation must be dropped or reduced in size) which will result from the change in the farm operation.

Having tried two or three partial budgets, and selected the most profitable one, the next step is to anticipate the flow of cash associated with the new operation. This is done using the cash flow statement (see page 31).

The cash flow statement will show a manager the cash flowing in and out of your farm over the period it is prepared for. In conjunction with the budget, through which you have selected your best alternative change, as estimated cash flow projection will tell you when you need operating credit during the year, how much you need, how long you need it for and when you can repay it.

These two tools, plus a thorough job of collecting data concerning your new operation, will certainly lessen the risk involved in changing your operation.

THE PARTIAL BUDGET TOOL

ADDED RETURNS:

_____
_____
_____

Total Added Returns (_____

REDUCED COSTS:

(a) Fixed Costs

_____
_____
_____
_____

Total Reduced Fixed Cost (_____

(b) Variable Costs

_____
_____
_____
_____
_____
_____

Total Reduced Variable Cost (_____)

TOTAL ADVANTAGES (_____

_____

ADDED COSTS:

(a) Fixed Costs

_____
_____
_____

Total Added Fixed Costs (_____)

(b) Variable Costs

_____
_____
_____

Total Added Variable Costs (_____)

REDUCED RETURNS:

_____
_____
_____
_____

Total Reduced Returns (_____)

TOTAL DISADVANTAGES (_____

_____

Expected Change in Labor Earnings (_____) - (_____) = (_____

Advantages Disadvantages Change

THE PARTIAL BUDGET TOOL

ADDED RETURNS:
Some changes may make it possible to have more product for sale. Crops previously fed out to be sold under the new plan become added returns. Rental income, custom work, income etc. are other sources. Some changes (like trading equipment) may not affect product sales at all.

Total Added Returns (_____)

REDUCED COSTS:
(a) Fixed Costs
The annual costs of interest, taxes, depreciation, license, insurance and cash rent will disappear if you dispose of a particular machine, building or parcel of land or herd of livestock etc. Other changes may not reduce total fixed costs e.g. using the same land, building equipment but decreasing production.

Total Reduced Fixed Cost (_____)

(b) Variable Costs
As you discontinue a particular activity or enterprise certain costs such as seed, fertilizer, gas, oil etc. will disappear. You might also be able to dispose of some hired labor. Rental shares of crops or livestock are variable expenses that disappear if you go out or a rental agreement. A more efficient machine may require less fuel or repairs for doing the same amount of work.

Total Reduced Variable Cost (_____)

TOTAL ADVANTAGES (_____)

ADDED COSTS:
(a) Fixed Costs
As you acquire a capital asset you acquire with it the ownership costs of interest, taxes, depreciation, license, insurance and cash rent. Buying more land or the new machine are examples. Increasing production with the same capital assets will not affect fixed costs.

Total Added Fixed Costs (_____)

(b) Variable Costs
As you increase the volume of production variable costs will generally increase. As you use your machine for custom work you will need more fuel and repairs. The same is true for improved husbandry practices such as use of fertilizers, protein supplements etc.

Total Added Variable Costs (_____)

REDUCED RETURNS:
Some alternatives might call for selling less product. Grain previously sold but now Fed is an example. At the same time of course there will be more livestock sold (see added returns). Disposing of a certain enterprise or activity will eliminate the revenue previously had from it.

Total Reduced Returns (_____)

TOTAL DISADVANTAGES (_____)

Expected Change in Labor Earnings (_____) - (_____) = (_____)
Advantages Disadvantages Change

CASH FLOW STATEMENT

_____ Months _____

			Total 1 half				Total 2 half
Cash Inflow							
Crop Return -							
Livestock Returns							
Other Farm Income							
Capital Sales							
TOTAL CASH INFLOW							
Cash Outflow							
Crops							
Livestock							
Sundry							
TOTAL CASH OUTFLOW							
Net Cash Position (+ or -)							
Loan Required							
Balance in Bank							

APPENDIX
TABLE A1

FARM INCOME STATEMENT

For the Year Ending December 31, 1970

	Low	Inter.	High	Total
A. Operator's Crop Receipts	$ 7195	$ 4743	$ 9293	$ 6374
Wheat Board Payments	143	112	170	133
Operator's Livestock Receipts	16170	11922	36108	17934
Operator's Livestock Product Receipts	2690	10384	20342	10001
Operator's Other Farm Receipts	848	692	1028	804
OPERATOR'S RECEIPTS	$ 27046	$ 27853	$ 66941	$ 35246
Landlord's Receipts	491	207	600	370
TOTAL OPERATING RECEIPTS	$ 27537	$ 28060	$ 67541	$ 35616
Change in Crop Inventory	-1315	1389	4144	1109
Change in Livestock Inventory	581	1661	5038	1994
Adjusted Farm Operating Receipts	$ 26803	$ 31110	$ 76723	$ 38719
Less Grain and Hay Purchased	1169	1589	3947	1922
Less Livestock Purchased	8005	3947	18218	7964
Add Perquisites	100	180	216	163
VALUE OF FARM PRODUCTION	$ 17730	$ 25754	$ 54774	$ 28896
Car and Truck Expenses	997	968	1415	1064
Tractor Expenses	914	864	1352	974
Combine & Swather Expenses	241	164	401	234
Other Equipment Expenses	567	440	1125	612
Building & Improvement Repairs	512	452	957	569
Crop Expenses	2399	1682	3184	2192
Livestock Expenses	1849	2376	3998	2534
Farm Overhead Expenses	1384	1346	2572	1597
Hired Labour Expense	1414	1489	4046	1966
Small Tools & Equipment	72	111	139	105
Cash Rent	250	215	911	362
Share Rent Earned by Landlord	511	215	571	374
Adjust For Supplies Inventory Change	-15	-95	-310	-112
Depreciation	3640	3721	6111	4163
TOTAL OPERATING EXPENSES	$ 14735	$ 13947	$ 26472	$ 16632
NET FARM EARNINGS	2995	11807	28302	12364
Less Interest Paid	1678	1399	2514	1700
OPERATOR'S NET FARM INCOME	$ 1317	$ 10408	$ 25788	$ 10664

APPENDIX
TABLE A2

STATEMENT OF PROPRIETOR'S CAPITAL

FOR YEAR ENDING DEC. 31, 1970

	Low	Inter.	High	Total
Investment January 1, 1971	$ 86656	$ 98274	$ 176950	$ 110130
Add Net Farm Income - Exhibit A	1317	10408	25788	10664
Total	$ 87973	$ 108682	$ 202738	$ 120794
Deduct Withdrawals	1144	5334	12040	5378
Balance December 31, 1971	$ 86829	$ 103348	$ 190698	$ 115416

BALANCE SHEET

Exhibit C

DECEMBER 31, 1970

ASSETS				
Current Assets				
Farm Cash	$ 1227	$ 1016	$ 2485	$ 1367
Accounts Receivable	439	531	849	566
Quota	450	2673	5162	2486
Supplies	570	560	1710	788
Grain And Feed	9369	9608	23711	12292
Livestock	18365	22093	50704	26555
Machinery And Equipment	20904	22335	35063	24389
Total Current Assets	$ 51324	$ 58816	$ 119684	$ 68443
Fixed Assets				
Buildings and Improvements	$ 11956	$ 11992	$ 23329	$ 14195
Land	50857	51558	92312	59309
Total Fixed Assets	$ 62813	$ 63550	$ 115641	$ 73505
TOTAL ASSETS	$ 114137	$ 122365	$ 235325	$ 141947
LIABILITIES				
Short Term	$ 3357	$ 1969	$ 6320	$ 3222
Intermediate Term	5295	4093	7910	5202
Long Term	18656	12955	30487	18107
Total Current and Long Term Liabilities	$ 27308	$ 19017	$ 44627	$ 26531
Proprietor's Equity				
Capital - Exhibit B	$ 86829	$ 103348	$ 190698	$ 115416
TOTAL LIABILITIES	$ 114137	$ 122365	$ 235325	$ 141947

	Low	Inter.	High	Total
Investment Factors				
Return to Operator's Equity	-2810	5244	19506	5594
Percent Return to Operator's Equity	-3.2%	5.2	10.6	5.0
Return to Equity & Borrowed Capital ($)	-1134	6643	22021	7294
Percent Return to Equity and Borrowed Capital	-1.0%	5.5	9.65	5.2
Capital Turnover (Years)	7.5	5.2	4.9	5.5
ize Factors				
Total Cultivated Acres	606.	552	998	656
Total Farm Acres	1052	913	2056	1178
Total Man Equivalents Employed	1.4	1.6	2.2	1.7
LABOUR SUMMARY				
abour Efficiency Factors				
Total Man Equivalents Employed	1.4	1.6	2.2	1.7
abour Available				
Type				
	Months			
Hired Labour	4.6	4.9	11.5	6.2
Family Labour	1.8	2.2	1.5	1.9
Operator Labour	10.4	12.3	13.2	11.9
otal Labour	16.8	19.4	26.2	20.0
abour Expense				
Cost of Hired Labour — Total	$1414	$1489	$4046	$1966
Cost of Hired Labour — Per Month	306	303	350	323
Value of Family Labour	485	566	396	508
Value of Operator Labour	3642	4601	5886	4561
alue of All Labour	5541	6656	10328	7035
abour - Capital Efficiency				
Total Farm Investment Per Man Equiv.	94400	82400	122741	95817
Equipment Investment Per Man Equiv.	14971	13617	15738	14508
Value of Production Per Man Equiv.	12631	15929	25079	17435

APPENDIX
TABLE A4

FARM INCOME STATEMENT

For the Year Ending December 31, 1971

		Low	Inter.	High	Total
A.	Operator's Crop Receipts	$ 5684	$ 4901	$ 5129	$ 5112
	Wheat Board Payments	381	329	602	383
	Operator's Livestock Receipts	9515	8382	64172	17767
	Operator's Livestock Product Receipts	4604	15265	28367	14176
	Operator's Other Farm Receipts	626	732	1759	869
	OPERATOR'S RECEIPTS	$ 20810	$ 29608	$100029	$ 38306
	Landlord's Receipts	252	303	165	270
	TOTAL OPERATING RECEIPTS	$ 21016	$ 29911	$100194	$ 38576
	Change in Crop Inventory	-776	351	381	124
	Change in Livestock Inventory	1209	2681	21184	5224
	Adjusted Farm Operating Receipts	$ 21494	$ 32943	$121760	43924
	Less Grain and Hay Purchased	819	1214	6579	2061
	Less Livestock Purchased	2360	2871	40337	8775
	Add Perquisites	129	201	277	194
	VALUE OF FARM PRODUCTION	$ 18444	$ 29059	$ 75121	$ 33282
	Car and Truck Expenses	920	957	1593	1043
	Tractor Expenses	804	838	1724	963
	Combine & Swather Expenses	290	200	385	255
	Other Equipment Expenses	1063	664	1457	918
	Building & Improvement Repairs	501	471	1567	661
	Crop Expenses	1876	1735	3530	2047
	Livestock Expenses	1439	2629	7227	3007
	Farm Overhead Expenses	1731	1735	3568	1967
	Hired Labour Expense	1121	2130	6685	2551
	Small Tools & Equipment	25	19	32	23
	Cash Rent	473	495	1362	612
	Share Rent Earned by Landlord	211	416	165	323
	Adjust For Supplies Inventory Change	-12	-77	111	-28
	Depreciation	3265	4164	6878	4304
	TOTAL OPERATING EXPENSES	$ 13707	$ 16376	$ 36283	$ 18645
	NET FARM EARNINGS	4737	12683	38838	14637
	Less Interest Paid	1306	1175	4110	1665
	OPERATOR'S NET FARM INCOME	$ 3431	$ 11508	$ 34728	$ 12972

STATEMENT OF PROPRIETOR'S CAPITAL

FOR YEAR ENDING DEC. 31, 1971

	Low	Inter.	High	Total
Investment January 1, 1971	$ 76570	$ 100394	$ 178758	$ 106497
Add Net Farm Income - Exhibit A	3431	11508	34728	12972
Total	$ 80001	$ 111902	$ 213486	$ 119469
Deduct Withdrawals	682	5796	11179	5210
Balance December 31, 1971	$ 79319	$ 106106	$ 202307	$ 114258

BALANCE SHEET

DECEMBER 31, 1971

ASSETS				
Current Assets				
Farm Cash	$ 735	$ 1106	$ 470	$ 956
Accounts Receivable	346	339	719	389
Quota	1647	6336	11316	5776
Supplies	438	626	1061	638
Grain And Feed	7962	9279	16813	10076
Livestock	19048	22906	94902	33221
Machinery And Equipment	20910	25006	41087	26455
Total Current Assets	$ 51086	$ 65598	$ 166368	$ 77511
Fixed Assets				
Buildings and Improvements	$ 11234	$ 16470	$ 26479	$ 16389
Land	41206	45894	84348	50919
Total Fixed Assets	$ 52440	$ 62364	$ 110827	$ 67308
TOTAL ASSETS	$ 103526	$ 127962	$ 277195	$ 144819
LIABILITIES				
Short Term	$ 1807	$ 2295	$ 4575	$ 2330
Intermediate Term	5989	3015	27265	7712
Long Term	16411	16546	43047	20519
Total Current and Long Term Liabilities	$ 24207	$ 21856	$ 74887	$ 30561
Proprietor's Equity				
Capital - Exhibit B	$ 79319	$ 106106	$ 202308	$ 114258
TOTAL LIABILITIES	$ 103526	$ 127962	$ 277195	$ 144819

APPENDIX
TABLE A6

		Low	Inter.	High	Total
Investment Factors					
Return to Operator's Equity ($)		-1726	6091	28465	7506
Percent Return to Operator's Equity		-2.2	5.9	14.9	6.8
Return to Equity & Borrowed Capital ($)		-420	7266	32575	9172
Percent Return to Equity and Borrowed Capital		-.4	5.8	12.4	6.5
Capital Turnover (Years)		6.3	5.1	4.1	4.9
Size Factors					
Total Cultivated Acres		1010	556	834	725
Total Farm Acres		1427	800	2131	1189
Total Man Equivalents Employed		1.4	1.8	2.8	1.8
LABOUR SUMMARY					
Labour Efficiency Factors					
Total Man Equivalents Employed		1.4	1.8	2.8	1.8
Labour Available					
Type					
		Months			
Hired Labour		2.9	6.0	18.2	6.9
Family Labour		2.4	3.6	.9	2.8
Operator Labour		11.4	11.5	14.2	11.9
Total Labour		16.7	21.1	33.3	21.6
Labour Expense					
Cost of Hired Labour	Total	$ 1121	$ 2130	$ 6685	$ 2551
	Per Month	390		368	370
Value of Family Labour	Total	717	921	242	737
	Per Month	299		266	265
Value of Operator Labour	Total	4440	4496	6021	4728
	Per Month	390		425	397
Value of All Labour	Total	6278	7547	12948	8016
	Per Month	377		389	371
Labour - Capital Efficiency					
Total Farm Investment Per Man Equiv.		83489	83618	109886	91031
Equipment Investment Per Man Equiv.		14887	13744	14055	14222
Value of Production Per Man Equiv.		13297	16459	27113	18501